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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,024

12/22/2005

Rudiger Briesewitz

AP 10724

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CONTINENTAL TEVES, INC.  
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EXAMINER

RASHID, MAHBUBUR

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,024	<b>Applicant(s)</b> BRIESEWITZ ET AL.	
	<b>Examiner</b> MAHBUBUR RASHID	<b>Art Unit</b> 3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Claims 1-11 are canceled.

Claims 12, 13, 17-19 and 22-23 are amended.

### ***Claim Objections***

**Claim 12** is objected to because of the following informalities: it is not clear how the seal can contact the housing bore or cavity. Appropriate correction is required.

**Claim 20** is objected to because of the following informalities: "(Previously presented)" should be -- (Currently amended) -- since the claim has been amended (see line 3). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 15 and 20** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 15** recites the limitation "the third bore step" in line 3. There is insufficient antecedent basis for this limitation in the claim.

**Claim 20** recites the limitation "the plastically deformed housing material" in line 5. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 12, 13, 15, 16, 18, 19 and 21-23** are rejected under 35 U.S.C. 102(b) as being anticipated by Tackett (US 5,531,513).

Regarding **claim 12**, Tackett discloses a piston-type accumulator (fig. 2), with an axially movable piston (201) in a housing bore (213), with a seal (combination of 202 and 203) contacting the piston (201) and the housing bore (213) and being fixed inside the housing bore (see col. 4, line 53), and with a cover (220) for closing the housing bore,

wherein the housing bore (213), at its end closed by the cover (220), is designed as a stepped bore enlarged in diameter in which the seal (combination of 202 and 203) is fixed.

**Re-claim 13**, see a first (see step portion below the seal (combination of 202 and 203)) and a second (see the step portion right above the seal (combination of 202 and 203) where the annular washer or collar (215) is sitting) bore steps are arranged inside the stepped bore (213), and the diameter of the stepped bore in the area of the first bore step (see step portion below the seal (combination of 202 and 203)) corresponds to the inside diameter of the housing bore (213), while the inside diameter of the

Art Unit: 3657

stepped bore in the area of the second bore step (see the step portion right above the seal (combination of 202 and 203) is adapted corresponds to the outside diameter of the seal (combination of 202 and 203).

**Re-claim 15**, see a retaining part (215) is provided between the second and a third bore step (the top portion of the housing where the element (217) is positioned) in order to fix the seal at the first bore step.

**Re-claim 16**, see the retaining part (215) bears directly against the second bore step (see the step portion right above the seal (combination of 202 and 203) where the annular washer or collar (215) is sitting), and wherein the seal (combination of 202 and 203) is covered by the retaining part (215) at least in part in the direction of the peripheral piston surface.

**Re-claim 18**, see the outside diameter of the retaining part (the end portion of the cover (220)) is adapted corresponds to the diameter of the stepped bore, and the inside diameter of the retaining part (the end portion of the cover (220)) is adapted corresponds to the outside diameter of a piston (combination of 216 and 201) guided in the housing bore (213).

**Re-claim 19**, see the retaining part (the end portion of the cover (220)) is formed directly by the edge (the bottom end of (220)) of the cover (220) that closes the housing bore (213).

**Re-claim 21**, see the cover (220) is configured as a bowl, the inside diameter of the bowl in the area of the edge having a minimum clearance with regard to the outside diameter of the piston (combination of 216 and 201) in order to fix the seal.

**Re-claim 22**, see the cover (220).

**Re-claim 23**, see a working stroke area of the piston (combination of 216 and 201), the bowl (220) has at least one portion in the direction of the bowl bottom, the inside diameter of which is expanded like a funnel in the direction of the bowl bottom in order to allow a generously tolerated passage of the piston (combination of 216 and 201).

**Claims 12, 14 and 21-23** are rejected under 35 U.S.C. 102(b) as being anticipated by Sinnl (US 6,024,421).

Regarding **claim 12**, Sinnl discloses a piston-type accumulator (fig. 1), with an axially movable piston (13) in a housing bore (25 and 26), with a seal (17) contacting the piston (13) and the housing bore (25 and 26) and being fixed inside the housing bore, and with a cover (21) for closing the housing bore,

wherein the housing bore (25 and 26), at its end closed by the cover (21), is designed as a stepped bore enlarged in diameter in which the seal (17) is fixed.

**Re-claim 14**, see the stepped bore at the outside edge of the housing bore (25) is limited by a third bore step (22) which is formed by a plastic deformation of the housing material which fixes the cover (21) at the stepped bore.

**Re-claim 21**, see the cover (21) is configured as a bowl, the inside diameter of the bowl in the area of the edge having a minimum clearance with regard to the outside diameter of the piston (13) in order to fix the seal (17).

**Re-claim 22**, see the cover (21).

**Re-claim 23**, see a working stroke area of the piston (13), the bowl (21) has at least one portion in the direction of the bowl bottom, the inside diameter of which is expanded like a funnel in the direction of the bowl bottom in order to allow a generously tolerated passage of the piston (13).

**Claims 12, 14 and 21-23** are rejected under 35 U.S.C. 102(b) as being anticipated by Hinz et al. (US 2005/0146210 A1).

Regarding **claim 12**, Hinz discloses a piston-type accumulator (fig. 5), with an axially movable piston (4) in a housing bore (4a, where the piston and spring is located), with a seal (fig. 5) contacting the piston (4) and the housing bore (4a, where the piston and spring is located) and being fixed inside the housing bore (4a, where the piston and spring is located), and with a cover (5; please note that the reference number “5” for the cover is not shown in fig. 5 but can be seen in fig. 4) for closing the housing bore (4a, where the piston and spring is located),

wherein the housing bore (4a, where the piston and spring is located), at its end closed by the cover (5; please note that the reference number “5” for the cover is not shown in fig. 5 but can be seen in fig. 4), is designed as a stepped bore enlarged in diameter in which the seal (fig. 5) is fixed.

**Re-claim 14**, see the stepped bore at the outside edge of the housing bore (4a, where the piston and spring is located) is limited by a third bore step (see fig. 5 where the end portion of the housing 3 retaining the bent portion of the cover 5) which is

Art Unit: 3657

formed by a plastic deformation of the housing material which fixes the cover (5) at the stepped bore.

**Re-claim 21**, see the cover (5; please note that the reference number “5” for the cover is not shown in fig. 5 but can be seen in fig. 4) is configured as a bowl, the inside diameter of the bowl in the area of the edge having a minimum clearance with regard to the outside diameter of the piston (4).

**Re-claim 22**, see the cover (5; please note that the reference number “5” for the cover is not shown in fig. 5 but can be seen in fig. 4).

**Re-claim 23**, see a working stroke area of the piston (4), the bowl (5) has at least one portion in the direction of the bowl bottom, the inside diameter of which is expanded like a funnel in the direction of the bowl bottom in order to allow a generously tolerated passage of the piston (4).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation



Art Unit: 3657

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 17 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tackett (US 5,531,513) in view of Sinnl (US 6,024,421).

Regarding **claim 17**, Tackett discloses all claimed elements as set forth above but explicitly fails to disclose the washer (215) of Tackett being pressed by the cover (220). However, Sinnl discloses a similar accumulator (fig. 1) including at least a washer (18) pressed by a cover (21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the cover of Tackett to press the annular washer as taught by Sinnl in order to provide extra support to retain the washer in place.

Regarding **claim 20**, Tackett discloses all claimed elements as set forth above and a snap ring (217) to retain or fix the cover (220) at the stepped bore of the housing but does not disclose a plastic deformation of the housing which fixes the cover. However, Sinnl discloses a similar accumulator (fig. 1) including a plastic deformation (22) of the housing material which fixes the cover (21) at the stepped bore. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide such arrangement, a plastic deformation of the housing material as taught by Sinnl in place of the snap ring arrangement of Tackett is an engineering design choice while such arrangement is cheap and less cost effective.

**Claims 13 and 15-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinz et al. (US 2005/0146210 A1) in view of Sinnl (US 6,024,421).

Regarding **claims 13 and 15-20**, Hinz discloses all claimed elements including a first retaining portion which is formed by a plastic deformation of the housing that fixes the seal in a step portion of the housing and a second retaining portion which is also formed by a plastic deformation of the housing that fixes the flange portion of the cover against the first retaining portion. Hinz does not disclose an annular washer positioned in a step portion that fixes the seal in the step portion of the housing as claimed. However, Sinnl discloses a similar accumulator (fig. 1) including at least a washer (18) pressed by a cover (21) fixes a seal (17) in a step portion. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use such annular washer as taught by Sinnl in place of the first retaining portion which is formed by a plastic deformation of the housing of Hinz because such washer will provide easier access to the seal without damaging the housing in order to replace the seal while the washer still fixes the seal in place when assembled.

### ***Response to Arguments***

Applicant's arguments with respect to claims 12-23 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAHBUBUR RASHID whose telephone number is (571)272-7218. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3657

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. R./  
Examiner, Art Unit 3657

/Robert A. Siconolfi/  
Supervisory Patent Examiner, Art  
Unit 3657